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Nutrition, Less Than Body Requirement

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Nutrition, Less Than Body Requirement

A state in which an individual experiences an inability to ingest, digest, and/or absorb nutrients in quantities sufficient to fulfill nutritional requirements.

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DEFINING CHARACTERISTICS

- Body weight 20% or more under ideal for height and frame
- Caloric intake (observed or reported) less than minimum daily requirement for current metabolic need
- Decreased serum albumin
- Decreased serum transferrin or iron-binding capacity
- Decreased total protein
- Decreased triceps skinfold or midarm circumference, less than 90% of the reference standard
- Electrolyte imbalance
- Lack of interest in food
- Loss of weight with adequate food intake
- Poor skin turgor
- Recent, unintentional weight loss of 20% or more of usual adult weight
- Satiety immediately after ingesting food
- Weakness with loss of mobility

CONTRIBUTING FACTORS

Pathophysiological

- | | |
|------------------------------|-------------------------|
| Alteration in smell | Decreased mental status |
| Alteration in taste | Decreased salivation |
| Chronic production of sputum | Diarrhea |
| Decreased appetite | Dysphagia |

Dyspnea
 Fatigue
 Inability to use the muscles needed
 for mastication
 Increased metabolic rate
 Malabsorption of nutrients
 Mechanical obstruction

Muscle weakness and/or paralysis
 Nausea and/or vomiting
 Pain
 Self-care deficit
 Stomatitis, glossitis
 Surgical interventions

Psychosociobehavioral

Aversion to food
 Cultural food preferences
 Depressed state
 Inability to prepare foods
 Inability to procure foods (related to
 physical or financial reasons)

Lack of knowledge regarding nutritional
 needs
 Loneliness
 Perceived inability to ingest food
 Self-induced malnutrition
 Stress

EXPECTED OUTCOMES

Client will gain 0.5–1.0 lb/wk until ideal weight is achieved.
 Total caloric intake is increased, preferably by the oral route; second choice, enteral; and third choice, parenteral.
 Serum albumin levels are maintained within normal limits.
 Decreased or eradicated nausea, vomiting, diarrhea, and/or stomatitis are experienced.
 Client and/or significant other(s) will verbalize a knowledge of nutritional needs.
 An achievable and realistic personal nutritional improvement plan is designed and implemented.

INTERVENTIONS

RATIONALE

Universal	
Perform a comprehensive nutritional assessment. This assessment needs to include such things as eating habits and personal preferences.	Formulating a plan that meets the nutritional requirements and is acceptable to the client is based on an accurate collection of information.
Monitor skin turgor and mucous membranes.	Inadequate food/fluid intake causes dehydration. Adequate food/fluid intake increases moistness of oral mucosa, enhances taste, and facilitates swallowing. Fluids also increase excretion of chemotherapeutic agents, thereby decreasing the cause of nausea and vomiting.

INTERVENTIONS**RATIONALE**

Help to maintain a food record (food diary).	Objective data can be obtained regarding the types and amounts of food consumed.
Monitor weight daily.	A careful assessment of weight is provided and the effectiveness of interventions used to meet nutritional requirements can be determined.
Monitor bowel function.	Constipation can cause feeling of abdominal fullness, thus decreasing appetite.
Monitor for stomatitis.	Mouth sores decrease the ability and desire to eat.
Specify foods to be eliminated from diet (e.g., very hot or icy cold foods; spicy, acidic, or coarsely textured foods).	Refraining from ingesting these foods minimizes irritation to the oral mucosa. Medications and irradiation can also alter taste sensations.
Use Xylocaine 2% Viscous Solution to anesthetize oral mucosa.	Oral anesthetizing agents decrease pain of mouth sores and improve tolerance of foods.
Provide sufficient fluids with meals.	Decreased salivation makes ingestion of certain foods difficult.
Provide comfort measures such as positioning, analgesics, and/or oxygen.	Pain and/or shortness of breath decrease appetite and ability to eat.
Change consistency of diet to meet needs.	Soft or pureed foods can aid in swallowing and ingesting of food.
Provide alcoholic beverage with meals.	Alcohol can stimulate gastric juices and increase appetite.
Provide small, frequent meals and limit fluids at mealtime.	Large meals three times a day increase a sense of fullness. Smaller meals and less fluid volume at meals facilitate gastric emptying and improve appetite. The small meals are also less overwhelming psychologically.

INTERVENTIONS**R**ATIONALE

Offer high-calorie, low-volume supplements between meals.	Additional caloric intake allows for ingestion of foods in small volumes with high nutrient density.
Encourage periods of exercise, as tolerated.	Exercise acts as an appetite stimulant and aids in digestion.
Compliment for eating well.	Positive feedback reinforces good eating habits.
Elevate head of bed or have client sitting during meals and for one hour after completion of meals.	Proper positioning prevents epigastric discomfort and minimizes potential for aspiration of food.
Offer antiemetics one hour before meals.	Antiemetics suppress the vomiting center in the medulla.
Suggest alternate measures to reduce nausea.	Chewing gum, hard candy, and dry, salty foods such as popcorn or crackers, may aid in controlling nausea and prevent development of an aversion to food.
Provide for rest periods before meals and during meals maintain a quiet, unhurried environment.	Energy is conserved to minimize fatigue at meals.
Assist with eating as needed.	Assistance with eating when physically unable to feed self assures adequate nutritional intake.
Utilize relaxation techniques.	Stress that is reduced or relieved can result in an improved appetite.
Provide adaptive or assistive devices.	Necessary equipment such as plate guards, special utensils, or splints provide independence with meals.
Instruct client and/or significant other(s) in specific nutritional needs, including restrictions.	Education is essential for understanding of specific needs and for follow-through with the nutritional program.

INTERVENTIONS

RATIONALE

Initiate enteral tube feedings as ordered. Include the following:

1. Check for hypoalbuminemia
2. Insert enteral feeding tube as ordered
3. Administer feedings at room temperature
4. Elevate head of bed at least 35°–40° during tube feeding and for one hour after completion of intermittent tube feedings
5. Check osmolality of medications with dietitian before administration via feeding tube
6. Change enteral feeding bag and tubing every 24 hours and rinse with tap water every six hours or following each intermittent feeding
7. Monitor intake and output, skin turgor, and stool consistency

Hypoalbuminemia is associated with a decrease in colloid osmotic pressure and results in significant intestinal mucosal edema, which impairs intestinal absorption of the enteral feeding and diminishes its effectiveness. Replacement of albumin is recommended before enteral feeding is initiated.

The insertion of a patent tube into the stomach provides an alternate route for nutritional support.

Abdominal cramping that is associated with tube feeding administration is reduced by careful attention to the temperature of the feeding.

Aspiration of the tube feeding is minimized by correct positioning.

Medications with osmolalities greater than 700 mOsm/kg can cause diarrhea when given concomitantly with the tube feeding solution. Some examples are: Cimetidine, 4035 mOsm/kg; Sulfamethoxazole-Trimethoprim (Bactrim) Suspension, 4560 mOsm/kg; and Potassium Chloride (KCI) Elixir, 3000 mOsm/kg.

These procedures prevent bacterial contamination of the tube feeding solutions.

Sufficient fluid intake is insured for hydration and fluid overload is prevented.

INTERVENTIONS

RATIONALE

<ol style="list-style-type: none"> 8. Check for tube placement and monitor for gastric residuals every four hours with continuous feeding and before initiation of intermittent feedings. If gastric return is greater than 100 cc, hold feeding for one hour and repeat aspiration before continuing feeding 9. Monitor complete blood counts, electrolytes, albumin levels, blood glucose levels, and urea nitrogen 10. Monitor tube insertion site 	<p>These precautions prevent aspiration of the tube feeding.</p> <p>These laboratory studies help determine the effectiveness of the tube feeding regime and also monitor for complications that can occur as a result of this regime.</p> <p>Frequent inspection of the site and daily care can assist in the prevention of redness and skin breakdown to the pressure areas.</p>
<p>Initiate total parenteral nutrition as ordered.</p> <p>Include the following:</p> <ol style="list-style-type: none"> 1. Administer all parenteral solutions via IV pump 2. Change dressings every 48 hours using aseptic technique 3. Change administration tubing and filter daily 4. Monitor vital signs every four hours 5. Monitor intake and output 	<p>IV pumps offer the advantage of closely monitoring parenteral solution rate. If parenteral nutrition is given too rapidly, hypermolar diuresis occurs and excess sugar is excreted leading to intractable seizures. If the solution is run too slowly, inadequate nutritional intake is the result.</p> <p>This allows for close inspection of the insertion site and assists in the prevention of bacterial growth at the site.</p> <p>This procedure prevents the risk of bacterial contamination to the parenteral solution.</p> <p>Vital sign changes can signify complications of parenteral administration. Especially note temperature rise, which could signify possible septicemia.</p> <p>Sufficient fluid intake is insured and fluid overload is prevented.</p>

INTERVENTIONS**R**ATIONALE

Inpatient	
Institute a calorie count.	Objective data are obtained on actual caloric intake.
Monitor intake and output.	Adequate fluid intake is insured without the complications of fluid overload.
Monitor results of laboratory studies (serum albumin, total protein, serum transferrin, total lymph, urinary protein, glucose, acetone, 24-hour urinary creatinine, nitrogen, and electrolytes).	Metabolic activity and immune function are carefully assessed through these laboratory studies.
Provide oral care 30 min before meals and frequently between meals.	These activities eliminate foul taste, moisten mucous membranes, and increase taste for food. They also prevent or promote healing of mouth sores.
Open all food containers from food tray and release odors outside the room.	Noxious stimuli caused by the immediate release of combination of odors at the bedside are reduced.
Encourage family to bring foods from home.	Familiar foods may be more appealing to the client.
Provide an optimal mealtime environment (such as a sun-room, lounge, or communal dining area).	A pleasant atmosphere has a positive influence on appetite.
Encourage family and/or friends to visit during meals.	The socialization of being with others while eating is important to many people.
Supervise or assist with menu selection.	Feedback is obtained on awareness of nutritional requirements and specific likes and dislikes and provides opportunity for reinforcement of good eating habits.

INTERVENTIONS

RATIONALE

<p>Initiate referrals as needed (e.g., dietary, occupational and speech therapy, social services, home care).</p>	<p>Appropriate referrals can assist with specific needs and concerns.</p>
<p>Community Health/ Home Care</p> <p>Evaluate the availability of space for food preparation, availability of refrigerator and other kitchen equipment for food preparation, and the presence of a significant other to assist with food preparation.</p>	<p>Assessment of living conditions is obtained and needs determined.</p>
<p>Assess diet of client and/or significant other(s) to determine if basic nutritional needs are met.</p>	<p>Some diet regimens, such as vegetarian diets, lack the proper nutrients to maintain normal body weight. If client fatigues easily, have significant other(s) prepare foods. If client lives alone and is ill, foods should be prepared in advance on days when client is feeling better.</p>
<p>Eat in a positive atmosphere—a favorite table or with family and friends when possible.</p>	<p>A pleasant atmosphere has a positive influence on appetite.</p>
<p>Minimize noxious odors by using foods that need minimal cooking time and have client away from cooking area during preparation.</p>	<p>Noxious odors can give rise to feelings of nausea or aversion to foods.</p>
<p>Make use of kitchen appliances such as blenders, microwaves, and food processors.</p>	<p>Convenience appliances aid in food preparation by decreasing the amount of energy and time spent to prepare foods.</p>
<p>Initiate appropriate referrals for assistive resources as needed (e.g., Meals on Wheels, Food Stamp Program, nutritionist, dentist, occupational therapist, and/or support groups).</p>	<p>Appropriate referrals for assistive resources can assist with specific home care needs and concerns.</p>

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